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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	53.040	46.271	21.798	0.000	21.798	22.136	22.391	22.755	23.128	Continuing	Continuing
1: <i>Combat Rations (CORANET)</i>	1.725	1.817	1.924	0.000	1.924	1.958	1.984	2.018	2.051	Continuing	Continuing
2: <i>Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Reseach Network)</i>	3.857	3.946	4.220	0.000	4.220	4.294	4.350	4.423	4.501	Continuing	Continuing
3: <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>	2.546	2.453	2.607	0.000	2.607	2.626	2.644	2.690	2.736	Continuing	Continuing
4: <i>Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)</i>	1.182	1.145	1.230	0.000	1.230	1.252	1.268	1.290	1.313	Continuing	Continuing
5: <i>Material Acquisition Electronics (MAE)</i>	10.372	10.065	10.839	0.000	10.839	11.030	11.172	11.364	11.560	Continuing	Continuing
6: <i>Battery Network (BATNET)</i>	0.000	0.981	0.978	0.000	0.978	0.976	0.973	0.970	0.967	Continuing	Continuing
7: <i>Other Congressional Adds (OCAs)</i>	33.358	25.864	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency (DLA) Industrial Preparedness Manufacturing Technology (IP ManTech) Program supports the development of a responsive, world-class manufacturing capability to affordably meet the warfighters' needs throughout the defense system life cycle. IP ManTech: Provides the crucial link between invention and product application to speed technology transitions. Matures and validates emerging manufacturing technologies to support low-risk implementation in industry and Department of Defense (DoD) facilities, e.g. depots and shipyards. Addresses production issues early by providing timely solutions. Reduces risk and positively impacts system affordability by providing solutions to manufacturing problems before they occur.

DLA ManTech includes Combat Rations Network for Technology Implementation (CORANET), Customer Driven Uniform Manufacturing (CDUM), Procurement Readiness Optimization—Advanced Casting Technology (PRO-ACT), Procurement Readiness Optimization—Forging Advance System Technology (PRO-FAST),

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APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i>	PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>
BA 7: <i>Operational Systems Development</i>	

and Material Acquisition Electronics (MAE) and Battery Network (BATTNET). As well as, Other Congressional Add (OCA) programs that are Congressionally Directed efforts.

B. Program Change Summary (\$ in Millions)

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	55.280	20.514	0.000	0.000	0.000
Current President's Budget	53.040	46.271	21.798	0.000	21.798
Total Adjustments	-2.240	25.757	21.798	0.000	21.798
• Congressional General Reductions		-0.136			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		26.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-1.678	0.000			
• SBIR/STTR Transfer	-0.562	0.000			
• FY 2011 Other Program Changes	0.000	0.000	21.798	0.000	21.798
• FY 2010 Economic Assumptions	0.000	-0.009	0.000	0.000	0.000
• FY 2010 Federally Funded Research and Development Center Reduction	0.000	-0.098	0.000	0.000	0.000

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 7: Other Congressional Adds (OCAs)

	<u>FY 2009</u>	<u>FY 2010</u>
Congressional Add: <i>Cellulosic Derived Biofuels Research Project</i>	3.988	0.000
Congressional Add: <i>Cooper Based Casting Technology Applications (CBCT)</i>	2.792	1.592
Congressional Add: <i>Improved Collapsible Urethane Fuel Storage (ICU-FST)</i>	1.596	0.000
Congressional Add: <i>Industrial Base Innovation Fund</i>	19.148	19.895
Congressional Add: <i>Northwest Defense Manufacturing Initiative</i>	1.596	1.989
Congressional Add: <i>Ultra-high Strength Steele for Landing Geer</i>	1.995	1.592
Congressional Add: <i>Vet-Biz Initiative for National Sustainment (VINS)</i>	1.995	0.796

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Congressional Add Details (\$ in Millions, and Includes General Reductions)

Congressional Add: *Wiring Integrity Technology*

	FY 2009	FY 2010
	0.248	0.000
Congressional Add Subtotals for Project: 7	33.358	25.864
Congressional Add Totals for all Projects	33.358	25.864

Change Summary Explanation

FY 2009- 26 PA OMNIBUS Reprogramming Action: \$1.528M

FY 2009 Economic Assumptions: \$.150M

FY 2010 Economic Assumptions: \$.223M

FY 2010 Federally Funded Research and Development Center Reduction: \$.020M

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 1: <i>Combat Rations (CORANET)</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: <i>Combat Rations (CORANET)</i>	1.725	1.817	1.924	0.000	1.924	1.958	1.984	2.018	2.051	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

In FY 2008, the Defense Supply Center Philadelphia (DSCP) sold \$4.45 billion in subsistence goods and services to the Department of Defense, making it DSCP's largest supply chain. Sales in subsistence continue to grow, largely due to requirements for overseas contingency operations. The Combat Rations Program is focused on improving the manufacturing technologies related to the production and distribution of the combat rations that are at the forefront of these operations, including Meals Ready to Eat (MREs) as well as Unitized Group Rations (UGR). The objectives are increased readiness, improved quality, and better ration variety. CORANET research efforts also help control the cost of the combat rations. The CORANET program engages all elements of the supply chain including producers, military services, Army Natick, United States Department of Agriculture (USDA), Food and Drug Administration (FDA), DLA, DSCP and academia to research and transition improved technologies for operational rations.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Combat Rations Accomplishments/Plans <i>FY 2009 Accomplishments:</i> Sonic seal transitioned into the final ration producer. New retort rack material made available to producers. Quality improvements to MRE components increase acceptability. <i>FY 2010 Plans:</i> Explore processes to infuse vitamins into components. Expand the availability of packaging material and aide in the development of new formulas to shelf stable products.	1.725	1.817	1.924	0.000	1.924

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency				DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>		PROJECT 1: <i>Combat Rations (CORANET)</i>				
B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<i>FY 2011 Base Plans:</i> Research new MRE packaging configuration. Improve the thermo-processing process. Streamline inspection procedures.								
Accomplishments/Planned Programs Subtotals				1.725	1.817	1.924	0.000	1.924
C. Other Program Funding Summary (\$ in Millions) N/A								
D. Acquisition Strategy N/A								
E. Performance Metrics CORANET is a community-of- practice, which includes all military and federal organizations involved in the development, procurement and oversight of combat rations, multiple university research partners, and the combat ration manufacturers themselves. The major objective of this program is to perform short term projects that ensure surge production capability, maintain food safety, improve the quality and produce ability of combat rations, and/or help make combat rations affordable. As a result the anticipated Percent of completed demonstration programs transitioning per year would be 50%. Strategic Plan Long-term Performance Targets – The average technical readiness level of a CORANET project is 6.5. The likelihood of maintaining the 50% is good. Annual Performance Targets – FY 2010: 50% of programs transitioning.								

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
a. Manufacturing Process Support Costs	C/CPFF	Clemson University Clemson, South Carolina	0.020	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
b. Manufacturing Process Support Costs	C/CPFF	Dairy Management Incorporated Des Plaines, Illinois	0.020	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
c. Manufacturing Process Support Costs	C/CPFF	Master Packaging Tampa, Florida	0.020	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
d. Manufacturing Process Support Costs	C/CPFF	Michigan State University East Lansing, Michigan	0.197	0.200	Dec 2009	0.250	Dec 2010	0.000		0.250	Continuing	Continuing	Continuing
e. Manufacturing Process Support Costs	C/CPFF	Rutgers State University of New Jersey Division of Grants & Contract Accounting New Brunswick, New Jersey	1.917	0.850	Dec 2009	0.750	Dec 2010	0.000		0.750	Continuing	Continuing	Continuing
f. Manufacturing Process Support Costs	C/CPFF	SOPAKO, Incorporated Mullins, South Carolina	0.147	0.026	Dec 2009	0.032	Dec 2010	0.000		0.032	Continuing	Continuing	Continuing
g. Manufacturing Process Support Costs	C/CPFF	University of Illinois	0.035	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
		Urbana, Illinois											
h. Manufacturing Process Support Costs	C/CPFF	University of Tennessee Knoxville, Tennessee	0.523	0.200	Dec 2009	0.250	Dec 2010	0.000		0.250	Continuing	Continuing	Continuing
i. Manufacturing Process Support Costs	C/CPFF	Texas Engineering Experiment Station, Office of Sponsored Research, Texas A&M University College Station, Texas	0.876	0.250	Dec 2009	0.250	Dec 2010	0.000		0.250	Continuing	Continuing	Continuing
j. Manufacturing Process Support Costs	C/CPFF	Cadillac Products Incorporated Troy, Michigan	0.035	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
k. Manufacturing Process Support Costs	C/CPFF	Ohio State University Research Foundation Columbus, Ohio	0.035	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
l. Manufacturing Process Support Costs	C/CPFF	Oregon Freeze Dry Incorporated Albany, Oregon	0.035	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
m. Manufacturing Process Support Costs	C/CPFF	Research and Development Associates	0.083	0.100	Dec 2009	0.150	Dec 2009	0.000		0.150	Continuing	Continuing	Continuing

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
		San Antonio, Texas											
n. Manufacturing Process Support Costs	C/CPFF	Sterling Foods, Limited San Antonio, Texas	0.035	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
o. Manufacturing Process Support Costs	C/CPFF	Virginia Polytechnic Institute and State University Blacksburg, Virginia	0.117	0.100	Dec 2009	0.100	Dec 2010	0.000		0.100	Continuing	Continuing	Continuing
p. Manufacturing Process Support Costs	C/CPFF	Washington State Universtiy Pullman, Washington	0.051	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
q. Manufacturing Process Support Costs	C/CPFF	Logistics Management Institute McLean, Virginia	0.060	0.091	Dec 2009	0.142	Dec 2010	0.000		0.142	Continuing	Continuing	Continuing
Subtotal			4.206	1.817		1.924		0.000		1.924			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 1: <i>Combat Rations (CORANET)</i>
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	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Vitamin Encapsulation Cheese Spread	■	■	■	■	■	■	■	■																				
Transition Projects	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Short Term Projects	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Oxygen Absorbing Packaging Materials	■																											
Knurled Seal Heat Bar Technology	■	■	■	■																								
New Formula MRE Shelf Stable Pocket Sandwich	■	■	■	■	■																							
Technology Transition Retort Racks	■	■	■	■	■	■	■	■																				
Acceptance Test for Retort Pouch Material	■	■	■	■	■																							
Ultra High Pressure infused Fruit	■	■	■	■	■	■	■	■	■																			
Identify, Define, Review and Implement Research Activities	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 1: <i>Combat Rations (CORANET)</i>
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Vitamin Encapsulation Cheese Spread	1	2009	4	2010
Transition Projects	1	2009	4	2015
New Short Term Projects	1	2009	4	2015
Oxygen Absorbing Packaging Materials	1	2009	1	2009
Knurled Seal Heat Bar Technology	1	2009	4	2009
New Formula MRE Shelf Stable Pocket Sandwich	1	2009	1	2010
Technology Transition Retort Racks	1	2009	4	2010
Acceptance Test for Retort Pouch Material	1	2009	1	2010
Ultra High Pressure infused Fruit	1	2009	1	2011
Identify, Define, Review and Implement Research Activities	1	2009	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				PROJECT 2: <i>Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Reseach Network)</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2: <i>Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Reseach Network)</i>	3.857	3.946	4.220	0.000	4.220	4.294	4.350	4.423	4.501	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Department of Defense, through the Defense Logistics Agency, purchased \$2.34 billion of clothing and textile items in FY 2008. The lead-time is up to 15 months and the current inventory acquisition value is over \$1.4 billion. The current focus of DLA military clothing research is Customer Driven Uniform Manufacturing (CDUM). CDUM explores the application of advanced manufacturing and information technologies and process reengineering to the end-to-end management of clothing and individual equipment (CIE). CDUM is focusing on item level radio frequency identification device (RFID) tagging to provide rapid response, asset visibility and improved agility tailored to the supply and sustainment of forces directly at the strategic and tactical levels of operations. This technology solution has been demonstrated to transform inventory control, materiel management, distribution, and warehousing so that critical Clothing and Textiles (C&T) items can be automatically tracked and item information available throughout the supply chain to include not only the manufacturers, but the upstream fabric and materials suppliers. Additional CDUM initiatives will include Army/DSCP shared asset visibility, Central Issue Facility (CIF) process reengineering and improved product performance and quality improvement.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Customer Driven Uniform Manufacturing Accomplishments/Plans <i>FY 2009 Accomplishments:</i> Item Level RFID Pilots at CIE Manufacturing Locations. CDUM Shade Instrument Correlation Study.	3.857	3.946	4.220	0.000	4.220

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 2: <i>Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Reseach Network)</i>
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B. Accomplishments/Planned Program (\$ in Millions)	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2010 Plans:</i> Supply Chain Process Reengineering and Advanced Technology for Military Clothing Shared Services Asset Visibility and Central Issue Facility Process Reengineering Manufacturing Methods for Product Performance and Quality Improvement.</p> <p><i>FY 2011 Base Plans:</i> CDUM II New Initiatives.</p>					
Accomplishments/Planned Programs Subtotals	3.857	3.946	4.220	0.000	4.220

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

The CDUM program focus is on clothing and individual equipment (CIE). The cost benefit analysis for the RFID initiative has demonstrated improvements in inventory accuracy through reductions in adjustments.

The documented inventory adjustment reduction is from 6.64% to .2% of total inventory. Cost benefit analyses are performed on CDUM initiatives on an ongoing basis.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency **DATE:** February 2010

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
a. Manufacturing Process Support Costs	C/CPFF	Production Data Integration Technologies Long Beach, California	5.400	1.400	Mar 2010	1.500	Mar 2010	0.000		1.500	Continuing	Continuing	Continuing
b. Manufacturing Process Support Costs	C/CPFF	AdvanTech Annapolis, Maryland	4.000	1.267	Mar 2010	1.300	Mar 2011	0.000		1.300	Continuing	Continuing	Continuing
c. Manufacturing Process Support Costs	C/CPFF	Human Solutions NA, Incorporated Dearborn, Michigan	0.600	0.150	Mar 2010	0.150	Mar 2011	0.000		0.150	Continuing	Continuing	Continuing
d. Manufacturing Process Support Costs	BPA	Logistics Management Institute McLean, Virginia	1.600	1.000	Mar 2010	1.137	Mar 2011	0.000		1.137	Continuing	Continuing	Continuing
e. Manufacturing Process Support Costs	C/CPFF	Atlantic Diving Supply Virginia Beach, VA	0.000	0.129	Mar 2010	0.133	Mar 2011	0.000		0.133	Continuing	Continuing	Continuing
Subtotal			11.600	3.946		4.220		0.000		4.220			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 2: <i>Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Reseach Network)</i>
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	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Supply Chain Process Reengineering and AIT for Military Clothing	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■																
Shared Army and DSCP Asset Visibility and CIF Process Reengineering	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■																
Manufacturing Methods for Product Performance and Quality Improvement					■	■	■	■	■	■	■	■	■	■	■	■																
Transition to CDUM II Prototype Implementations													■	■	■	■	■	■	■	■	■	■	■	■								
CDUM II New Initiatives													■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 2: <i>Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Reseach Network)</i>

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Supply Chain Process Reengineering and AIT for Military Clothing	1	2009	4	2012
Shared Army and DSCP Asset Visibility and CIF Process Reengineering	1	2009	4	2012
Manufacturing Methods for Product Performance and Quality Improvement	1	2010	4	2012
Transition to CDUM II Prototype Implementations	1	2012	4	2014
CDUM II New Initiatives	1	2012	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				PROJECT 3: <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3: <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>	2.546	2.453	2.607	0.000	2.607	2.626	2.644	2.690	2.736	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
<p>Weapon system spare parts which use castings are responsible for a disproportionate share of backorders. Cast parts are 2% of National Stock Numbered parts but represent 4% of all backorders, and when only the oldest backorders are considered, up to 19% of them are castings. This program develops innovative technology and processes to improve the procurement, manufacture, and design of weapon system spare parts which use castings. The Procurement Readiness Optimization-Advanced Casting Technology (PRO-ACT) program takes a systems view and considers not only the Defense Logistics Agency (DLA) perspective but also the Military Service Engineering Support Activities (ESA) which DLA works with to solve technical issues, as well as the industrial supply base. The program has three components: Rapid Acquisition, Quality, and Cost Effectiveness.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Procurement Readiness Optimization-Advanced Casting Technology Accomplishments/Plans							2.546	2.453	2.607	0.000	2.607
<p><i>FY 2009 Accomplishments:</i> There are 20,000 tools in the Defense Tooling Database, a 25% increase over last year. Pushing \$1.5 million in solicitations per month (275 total solicitations in the last year) to foundries with existing casting tooling. Out of the 275 solicitations, the companies confirmed that they received an award on 141 of the 275. Furthermore, the awardees were not the previous supplier in 81 of those awards. In terms of cost savings – comparing the dollar value at the award price against the dollar value at the previous price, the program achieved a cost savings on this sample of 141 orders of \$786K. Completed digital radiography standard for aluminum castings.</p>											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency				DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>		PROJECT 3: <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>				
B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2010 Plans:</i> Develop technology to predict service life performance of steel castings. Develop statistical properties for E357 sand cast aluminum for aerospace castings.</p> <p><i>FY 2011 Base Plans:</i> Completed digital radiography standard for investment steel castings. Develop high strength cast steels that can substituted for titanium casting with no weight penalty with substantial cost savings.</p>								
Accomplishments/Planned Programs Subtotals				2.546	2.453	2.607	0.000	2.607
C. Other Program Funding Summary (\$ in Millions)								
N/A								
D. Acquisition Strategy								
Competitive Broad Agency Announcement (BAA) evaluations completed and this contract awarded competitively. The current contract reaches its funding ceiling October 2010. A similar acquisition strategy is planned the follow-on work in the out years.								
E. Performance Metrics								
This program has a business case that justifies the investment in terms of economic and readiness benefits.								

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 3: <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>
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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
a. Manufacturing Process Support Costs	C/CPFF	Advanced Technologies Institute North Charleston, South Carolina	5.660	2.453	Jan 2010	2.607	Mar 2011	0.000		2.607	Continuing	Continuing	Continuing
Subtotal			5.660	2.453		2.607		0.000		2.607			

Remarks

Project Cost Totals	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
		Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Project Cost Totals	5.660	2.453		2.607		0.000		2.607			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 3: <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>
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	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
DoD Procurement Tools and technical Support	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Metal Matrix Composites									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rapid Tooling									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Yield Improvement									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
A201 Statistical Properties									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rapid Tooling for Short Run Metal Mold Applications	■	■	■	■	■	■	■	■																								
High Performance Casting Alloys	■	■	■	■	■	■	■	■																								
Self-Propagating High Temp Synthesis (SHS) for Metal Matrix Composite Components	■	■	■	■	■	■	■	■																								
Casting Metal Mold Production Improvements	■	■	■	■	■	■	■	■																								
Short Run Insert Production and Improved Yield	■	■	■	■	■	■	■	■																								
E357 Statistical Properties	■	■	■	■	■	■	■	■																								
Optimizing Corrosion Performance on Stainless Steel Castings & Welds	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Solidification Under pressure and Digital Radiography Standard for Investment Steel Castings	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Cast Part Performance in the Presence of Discontinuities	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Casting Standards and Specifications	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 3: <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>
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	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Procurement Solutions Network	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rapid Prototyping									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 3: <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
DoD Procurement Tools and technical Support	1	2009	4	2015
Metal Matrix Composites	1	2011	4	2015
Rapid Tooling	1	2011	4	2015
Yield Improvement	1	2011	4	2015
A201 Statistical Properties	1	2011	4	2015
Rapid Tooling for Short Run Metal Mold Applications	1	2009	4	2010
High Performance Casting Alloys	1	2009	4	2010
Self-Propagating High Temp Synthesis (SHS) for Metal Matrix Composite Components	1	2009	4	2010
Casting Metal Mold Production Improvements	1	2009	4	2010
Short Run Insert Production and Improved Yield	1	2009	4	2010
E357 Statistical Properties	1	2009	4	2010
Optimizing Corrosion Performance on Stainless Steel Castings & Welds	1	2009	4	2015
Solidification Under pressure and Digital Radiography Standard for Investment Steel Castings	1	2009	4	2015
Cast Part Performance in the Presence of Discontinuities	1	2009	4	2015
Casting Standards and Specifications	1	2009	4	2015
Procurement Solutions Network	1	2009	4	2015
Rapid Prototyping	1	2011	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				PROJECT 4: <i>Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
4: <i>Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)</i>	1.182	1.145	1.230	0.000	1.230	1.252	1.268	1.290	1.313	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
<p>Weapon system spare parts which use forgings are responsible for a disproportionate share of DLA backorders. Forged parts are ~3% of National Stock Numbers (NSNs) but ~6% of unfilled orders. This program develops methods and technology to improve the supply of forged parts. This program takes a holistic view of the problem and attacks root causes inside DLA, at DLA's engineering support activity partners in the Services, and at DLA forging suppliers. The program has three thrusts: Business Enterprise Integration to improve supply support approaches; FORGE-IT to develop and improve technical problems; and R&D which develops new technology for forging suppliers, including new methods for making forge dies (typically the longest lead time item) and for simulation of metal flow inside the forge die (to eliminate trial and error development of the die).</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Procurement Readiness Optimization-Forging Advanced System Technology Accomplishments/Plans							1.182	1.145	1.230	0.000	1.230
<p><i>FY 2009 Accomplishments:</i> There are 60,000 tools in the National Forging Tooling Database Completed lean manufacturing demonstration projects at one small forge. Developed plan for dynamic partnering (sourcing tool) for forgings; lean six sigma process improvements at forges; develop multi-material, multi-method evaluation tool.</p>											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 4: <i>Procurement Readiness Optimization- Forging Advanced System Technology (PRO-FAST)</i>
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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
a. Manufacturing Process Support Costs	C/CPFF	Advanced Technologies Institute North Charleston, South Carolina	3.354	1.145	Jan 2010	1.230	Jan 2011	0.000		1.230	Continuing	Continuing	Continuing
Subtotal			3.354	1.145		1.230		0.000		1.230			

Remarks

Project Cost Totals	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
		Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Project Cost Totals	3.354	1.145		1.230		0.000		1.230			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 4: <i>Procurement Readiness Optimization- Forging Advanced System Technology (PRO-FAST)</i>
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	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
DoD Procurement Tools and Technical Support	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Simulation of Heat Treat Distortion																	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Simulation and Workforce Development	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■																
Rapid Low Cost Data Generation for Simulation																	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Next Generation Low Cost Aluminum Alloys																	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
National Forging Tooling Database (NFTD)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Metal and Process Optimization (MPO)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■																
Laser Deposition of Tooling	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■																
Dynamic Partnering (DP)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■																
SmartChart™ Intelligent Process Tools for Forges	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 4: <i>Procurement Readiness Optimization- Forging Advanced System Technology (PRO-FAST)</i>

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
DoD Procurement Tools and Technical Support	1	2009	4	2015
Simulation of Heat Treat Distortion	1	2013	4	2015
Simulation and Workforce Development	1	2009	4	2012
Rapid Low Cost Data Generation for Simulation	1	2013	4	2015
Next Generation Low Cost Aluminum Alloys	1	2013	4	2015
National Forging Tooling Database (NFTD)	1	2009	4	2015
Metal and Process Optimization (MPO)	1	2009	4	2012
Laser Deposition of Tooling	1	2009	4	2012
Dynamic Partnering (DP)	1	2009	4	2012
SmartChart™ Intelligent Process Tools for Forges	1	2009	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				PROJECT 5: <i>Material Acquisition Electronics (MAE)</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
5: <i>Material Acquisition Electronics (MAE)</i>	10.372	10.065	10.839	0.000	10.839	11.030	11.172	11.364	11.560	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
<p>Develop a capability to emulate most obsolete digital integrated circuits (ICs) in the Federal catalog using a single, flexible manufacturing line. DoD has estimated \$2.9 billion is spent every five years redesigning circuit card assemblies. Many of these circuit card redesigns are performed to mitigate IC obsolescence. Commercial ICs have short Product Life Cycles (often only 18 months). IC Manufacturers subsequently move on to later generations of ICs, leaving little to no sources for their previous IC products. DoD maintains weapons systems much longer than IC lifecycles, resulting in an obsolescence problem. In order to avoid costs and potential readiness issues associated with buying/carrying excess inventories acquired before commercial availability ceases, or redesigning the next higher assembly to mitigate the obsolete IC, DLA (as the manager of 88% of the IC Federal Stock Class) must have the capability to manufacture needed IC devices.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Material Acquisition Electronics Accomplishments/Plans							10.372	10.065	10.839	0.000	10.839
<p><i>FY 2009 Accomplishments:</i> MAE has produced new IC types including: Modular Pack Mine System, F/A-18, Milstar, AV-8B, F-15, and B-1. MAE has extended its capability to produce high operational speed, more complex function ICs, while simultaneously increasing yield.</p> <p><i>FY 2010 Plans:</i> MAE will continue to advance our 0.5 micron design, test, and fabrication technologies, expanding our capabilities for high circuit density and radiation hardened ICs. The IC characterization tool will continue development to accommodate more complex DoD IC requirements, providing critical missing design specifications. MAE will continue an IC requirements assessment and evaluate the feasibility</p>											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency				DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>		PROJECT 5: <i>Material Acquisition Electronics (MAE)</i>				
B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>of an analog Emulation capability. These efforts will include progressively more complex Application Specific Integrated Circuits (ASICs).</p> <p><i>FY 2011 Base Plans:</i> MAE will continue to develop additional capability and expand it to succeeding generations of obsolete ICs through successive technology nodes. These technologies will be demonstrated through performance based specification and Weapons System IC insertions. In addition, there has been increased DoD concern over trusted sourcing issues, as most IC design and production has migrated to overseas suppliers.</p>								
Accomplishments/Planned Programs Subtotals				10.372	10.065	10.839	0.000	10.839
C. Other Program Funding Summary (\$ in Millions)								
N/A								
D. Acquisition Strategy								
N/A								
E. Performance Metrics								
Transition of one technology implementation (base array) to low-rate initial production or full-scale production.								

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 5: <i>Material Acquisition Electronics (MAE)</i>
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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
a. Manufacturing Process Support Costs	C/CPFF	Sarnoff Corporation Princeton, New Jersey	29.462	10.065	Oct 2009	10.839	Oct 2011	0.000		10.839	Continuing	Continuing	Continuing
Subtotal			29.462	10.065		10.839		0.000		10.839			

Remarks

	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	29.462	10.065	10.839	0.000	10.839			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 5: <i>Material Acquisition Electronics (MAE)</i>

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Perform Gap Analysis (GA)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Implement Process Improvements	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Plan required Process Improvements	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Perform Process Review	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Transition New Microcircuit Designs to LRIP	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Develop Low Rate Initial Production (LRIP) Capability	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Develop Prototypes for Test and Insertion	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Update Design Library	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Perform Base Array Designs Required to Fill GA	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Monitor and Adjust Process Improvements	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 5: <i>Material Acquisition Electronics (MAE)</i>
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Perform Gap Analysis (GA)	1	2009	4	2015
Implement Process Improvements	1	2009	4	2015
Plan required Process Improvements	1	2009	4	2015
Perform Process Review	1	2009	4	2015
Transition New Microcircuit Designs to LRIP	1	2009	4	2015
Develop Low Rate Initial Production (LRIP) Capability	1	2009	4	2015
Develop Prototypes for Test and Insertion	1	2009	4	2015
Update Design Library	1	2009	4	2015
Perform Base Array Designs Required to Fill GA	1	2009	4	2015
Monitor and Adjust Process Improvements	1	2009	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency								DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				PROJECT 6: <i>Battery Network (BATTNET)</i>				
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost	
6: <i>Battery Network (BATTNET)</i>	0.000	0.981	0.978	0.000	0.978	0.976	0.973	0.970	0.967	Continuing	Continuing	
Quantity of RDT&E Articles												
A. Mission Description and Budget Item Justification												
Mission Description and Budget Item Justification BATTNET is focused on improving the supply and reducing the cost of batteries used in fielded weapon systems, such as communication radios and armored vehicles. BATTNET is a community of practice of battery supply chain members, including materials and components suppliers, assemblers, engineering support activities, battery maintenance activities, researchers, and users.												
B. Accomplishments/Planned Program (\$ in Millions)												
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total		
BATTNET Accomplishments/Plans						0.000	0.981	0.978	0.000	0.978		
<i>FY 2009 Accomplishments:</i> DLA awarded nine industry contracts as a result of a BAA developed with the Military Services. DLA formally established Program Management and continued collaborative process with the Joint Defense Manufacturing Technology Panel (JDMTP) Power Sources Committee and National Defence Industrial Association (NDIA) Power Forum.												
<i>FY 2010 Plans:</i> DLA conducted an initial BATTNET meeting in October 2009 to review and assess the project proposals originally submitted in the BAA. DLA plans on conducting a study of its battery supply chain and work with the BATTNET on new project proposals. BATTNET R&D will be done through awards of Short Term Projects (STP) implemented within the DLA battery supply chain to assure the prompt and sustained availability, quality, and affordability of batteries. STPs have an expected duration of 18-24 months and an average funding of \$100K-\$500K per year. STP proposals are required to include a business case with specific metrics for success and a predicted return on investment (ROI).												

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency				DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>		PROJECT 6: <i>Battery Network (BATTNET)</i>				
B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<i>FY 2011 Base Plans:</i> Initial focus will be on processes used to qualify new producers, so that surge requirements can be more easily met.								
Accomplishments/Planned Programs Subtotals				0.000	0.981	0.978	0.000	0.978
C. Other Program Funding Summary (\$ in Millions)								
N/A								
D. Acquisition Strategy								
A competitive Broad Area Announcement (BAA) will allow for maximum competition. To continue the competition throughout the life of the program, up to 10 contracts will be awarded to research partners. These research partners will continue to compete among themselves for particular research tasks. Additional partners will be sought as the need arises.								
E. Performance Metrics								
Each Short Term Project (STP) will have performance metrics appropriate to its scope. Also all STPs will include a business case to demonstrate return on investment, or a readiness case to calculate warfighter impact versus costs.								

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 6: <i>Battery Network (BATTNET)</i>
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	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Battery Network Program					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 6: <i>Battery Network (BATTNET)</i>
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Battery Network Program	1	2010	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				PROJECT 7: <i>Other Congressional Adds (OCAs)</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
7: <i>Other Congressional Adds (OCAs)</i>	33.358	25.864	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

DLA oversees the management of Congressional Add programs assigned to program element 0708011S, Industrial Preparedness.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010
Congressional Add: Cellulosic Derived Biofuels Research Project <i>FY 2009 Accomplishments:</i> The objective of this program is to demonstrate that cellulosic-derived biodiesel and JP-8 are viable for large scale production in a process that utilizes algae to convert biomass into bio-oils. The research approach includes first conducting biomass surveys to identify suitable crops and available croplands in Kentucky to ensure there is enough biomass feedstock available for a commercial scale biofuel facility. Then, an optimal 'recipe' of cellulosic material will be determined for the production of biodiesel and (ultimately) bio jet fuel using non-food cellulosic materials.	3.988	0.000
Congressional Add: Cooper Based Casting Technology Applications (CBCT) <i>FY 2009 Accomplishments:</i> The objectives of this program are to leverage the successes of the DLA-led CBCT program into deployable applications and to develop lighter/smaller pump/motor applications that are more efficient, run cooler, & last longer.	2.792	1.592

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 7: <i>Other Congressional Adds (OCAs)</i>
B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
<i>FY 2010 Plans:</i> To be determined.		
Congressional Add: Improved Collapsible Urethane Fuel Storage (ICU-FST) <i>FY 2009 Accomplishments:</i> Collapsible Fuel Storage Tanks have provided tactical bulk petroleum storage to the U.S. Military for decades. Initially developed to supplement bolted steel tanks, bladders have now become the primary method used by the Department of Defense (DoD) for storing tactical fuel on the battlefield. Current bladders being used have been unreliable, inefficient and unsafe with a history of failures that have caused the end users to lose faith in this equipment. As there are no commercial applications for bags in Contingent United States (CONUS), this effort will focus exclusively on DoD use. Accomplishments to date include: High Temperature Dead Load in Fuel Apparatus prototype cylinder design work completed and finalized DOE (design of experiment) with ILC Dover on design of manufacturing and process control experiment including equipment that will be used. Improve tank fabrication techniques and quality control procedures in design and manufacture of tank seams. Incorporate fabrication and quality control improvements into Joint Military Performance Specification. Share findings with Government and industry.	1.596	0.000
Congressional Add: Industrial Base Innovation Fund <i>FY 2009 Accomplishments:</i> The Defense Logistics Agency (DLA) received the tasking in January 2008 to execute the program on behalf of the Department of Defense. DLA has been instructed to execute the fund in coordination with the Joint Defense Manufacturing Technology Panel (JDMTP) and with the Office of the Deputy Under Secretary of Defense for Industrial Policy (ODUSD(IP)). The objective of the program is to	19.148	19.895

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 7: <i>Other Congressional Adds (OCAs)</i>
B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
<p>ensure that investments are made to address shortfalls in manufacturing processes and technologies in support of the Department's long-term and short-term needs.</p> <p><i>FY 2010 Plans:</i> To be determined.</p>		
<p>Congressional Add: Northwest Defense Manufacturing Initiative</p> <p><i>FY 2009 Accomplishments:</i> Northwest Manufacturing Initiative has several thrusts. Half the funding goes toward training activities for subject matter experts (SMEs) that include lean, outreach, workforce development and capability mapping. The other half of the funding goes to Portland State University to develop and complete technology transfer in advanced welding technologies.</p> <p><i>FY 2010 Plans:</i> To be determined.</p>	1.596	1.989
<p>Congressional Add: Ultra-high Strength Steele for Landing Geer</p> <p><i>FY 2009 Accomplishments:</i> The objective of this program is to develop and deploy a corrosion resistant ultrahigh strength steel equal to or better than 300M and 4340 for the Department of Defense weapon system components that will reduce development time and weapon system life-cycle maintenance costs.</p> <p><i>FY 2009 Accomplishments:</i> AMS 5922 (Aerospace Material Specification for Corrosion-Resistant Steel Bars) and MMPDS-05 (Metallic Materials Properties Development and Standardization) standards approval, completion of full scale 3-axis fatigue testing on A-10 main landing gear (MLG) piston, and completion of pressure testing on A-10 strut brace.</p>	1.995	1.592

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	PROJECT 7: <i>Other Congressional Adds (OCAs)</i>
B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
FY 2009 Plan: Complete full rig 3-axis testing on T38 piston, produce C-5 roll pin forgings, and produce F-16 lightweight nose landing gear (NLG) axel components. <i>FY 2010 Plans:</i> To be determined.		
Congressional Add: Vet-Biz Initiative for National Sustainment (VINS) <i>FY 2009 Accomplishments:</i> The objective of this program it to provide strategic consulting and hands on training to help Service Disabled Veteran Owned Business (SDVOSB). <i>FY 2010 Plans:</i> To be determined.	1.995	0.796
Congressional Add: Wiring Integrity Technology <i>FY 2009 Accomplishments:</i> The objective of this project was to improve the inspection capability of multi-strand aviation power and communication wires.	0.248	0.000
Congressional Adds Subtotals	33.358	25.864
C. Other Program Funding Summary (\$ in Millions) N/A		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Logistics Agency **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	PE 0708011S: <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	7: <i>Other Congressional Adds (OCAs)</i>

E. Performance Metrics

N/A

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